WINCOR NIXDORF

CERTO 415/417

KIOSK-System

User Guide

CERTO 415/417

Kiosk system

User Guide

November 2006

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Note on the laser

If your device is equipped with a CD-ROM drive, the following condition applies:
The CD ROM drive contains a light-emitting diode (LED), classified according to IEC 825-1:1993:LASER CLASS 1; it must not be opened.

Laser safety

The barcode scanner complies with safety standard EN60825-1 (2001) for a Class 1 laser product. It also complies with IEC 60825-1: 1993+A1:1997+A2:2001. Laser Radiation – do not stare directly into beam.

Radiant Energy The barcode scanner uses a low-power laser diode operating at 650 nm in an opto-mechanical scanner resulting in less than 1.1 mW peak output power.

Device Overview

Device type

CERTO 415/417 is a multifunctional information terminal designed for indoor installation.

Components

The CERTO 415/417 basic version consists of:

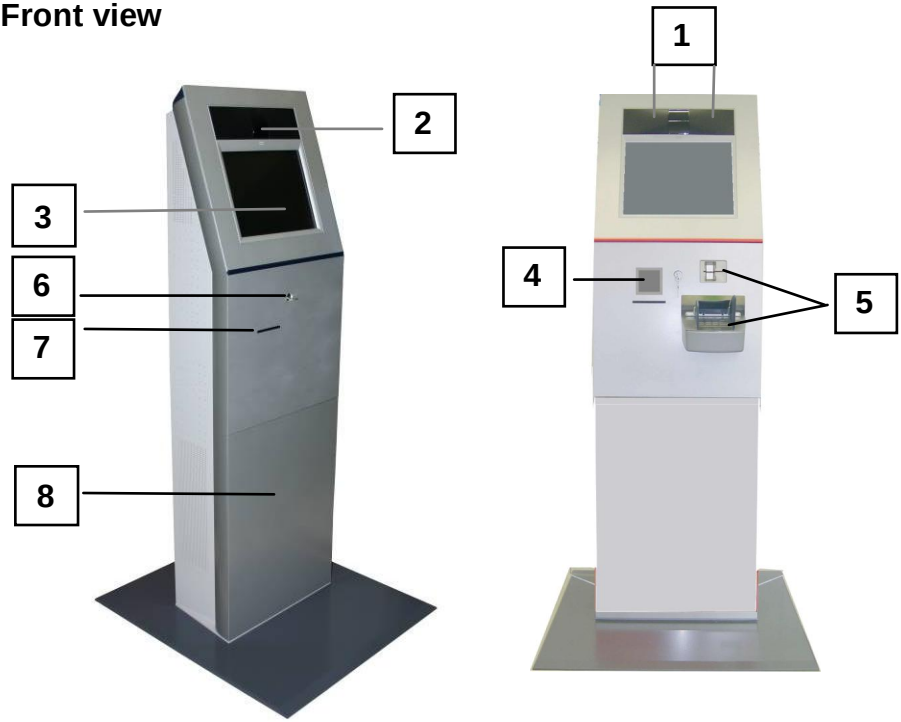
- 15'' or 17''LCD monitor (w and w/o touch screen)
- System unit BEETLE /M-II or embedded PC
- Lock DOM
- Power distributor
- Stereo loudspeaker

Country/project specific versions may comprise of the following optional components:

- EFT terminal incl. PSU
- Barcode-scanner
- Thermal printer TP07c
- Proximity sensor
- Power supply system
- Open door switch
- Card reader
- Keyboard

Device views

Front view



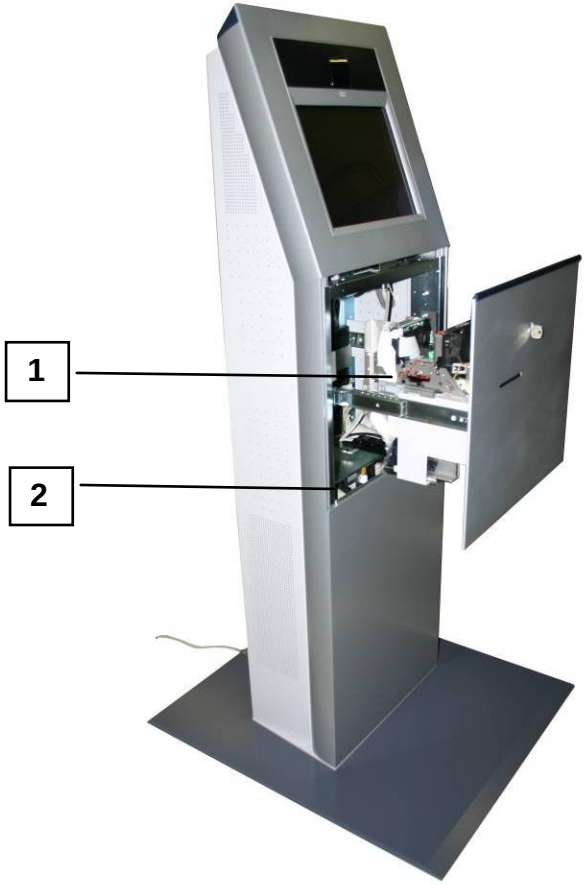
1 Loudspeaker
2 Proximity sensor /camera
3 15“ LCD-monitor with touch screen
4 Barcode reader
5 Integrated EFT terminal (PinPad + card reader)
6 Lock of equipment carriage
7 Paper output
8 Front panel bottom

Rear view

1 Opening for cable

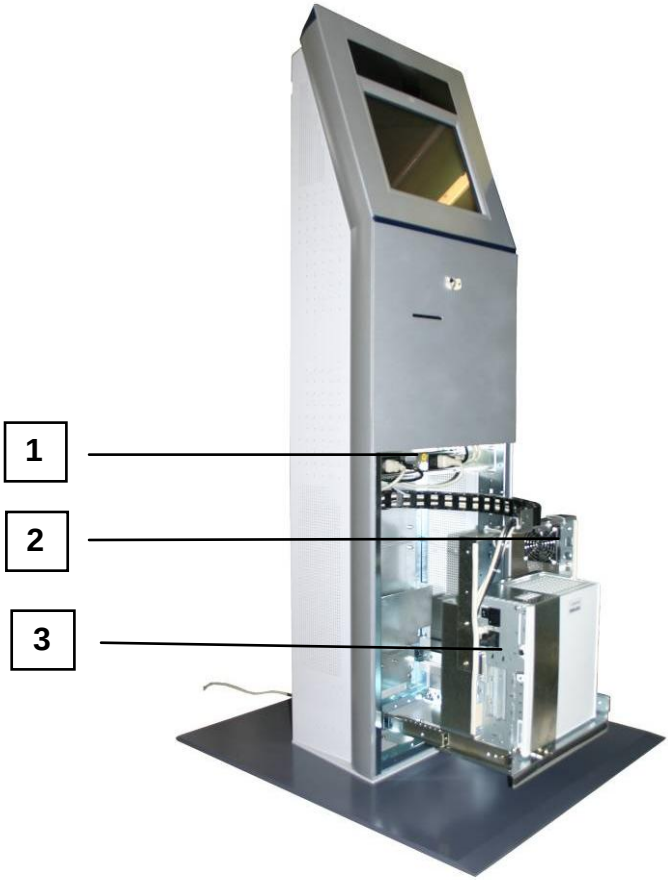
Equipment carriage pulled out

Device with receipt printer TP07c



1 Receipt printer TP07c
2 Power distributor
(6 connectors shown in the picture, optional 3 connectors available)

Front panel bottom removed



1 Power distributor
(6 connectors shown in the picture, optional 3 connectors available)
2 Fans
3 System unit BEETLE /M-II

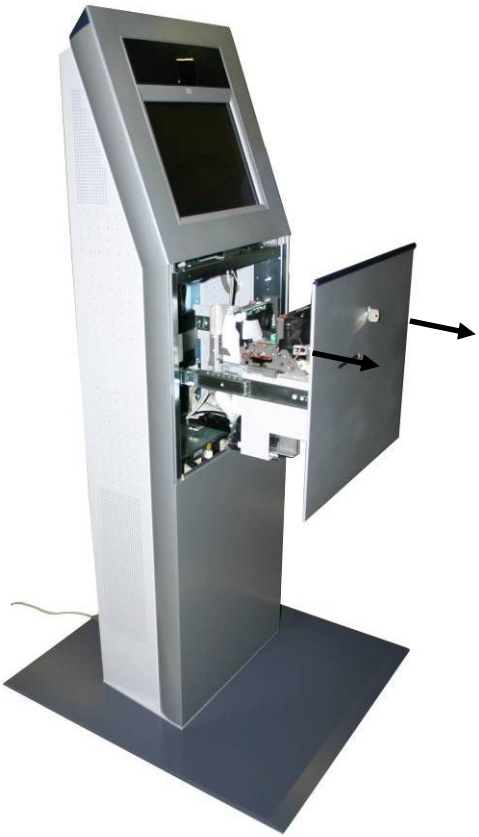
Basic operation

Opening/closing the device

A set of two keys is supplied to open and to close the device doors (monitor cover, rear cover, equipment carriage).

Pulling out the equipment carriage:
Insert the supplied key into the lock and turn it in the direction of the arrow.

Grasp the equipment carriage on both sides and pull it out of the device as far as possible (see arrows).

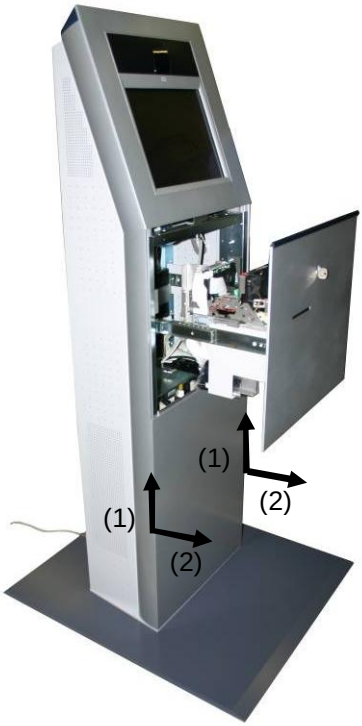


Pushing in the equipment carriage:
Push the equipment carriage into the device as far as possible.

Turn the key in the direction indicated by the arrow and remove it from the lock.

Removing the front panel

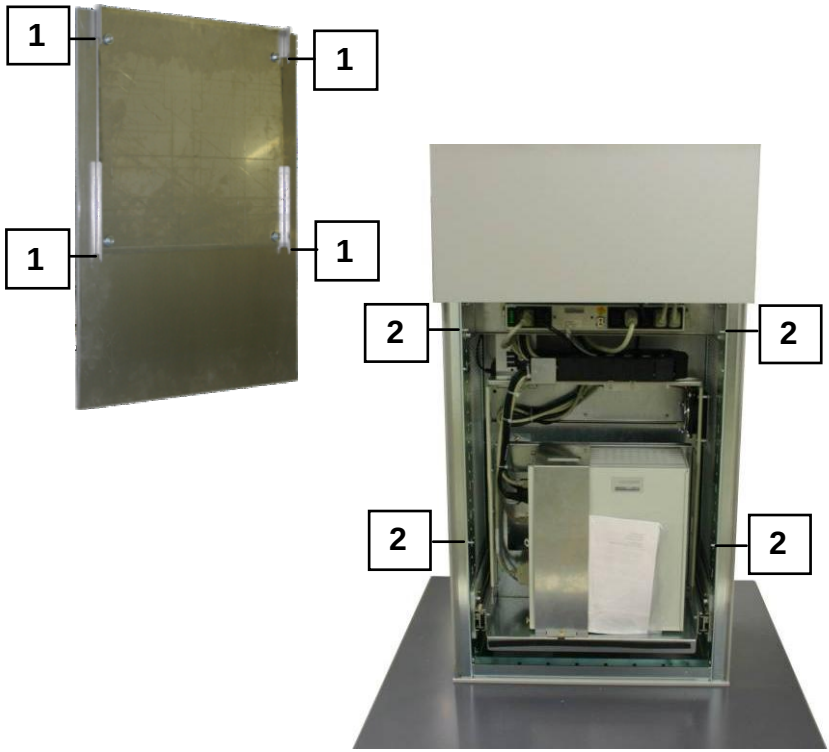
Pull out the equipment carriage (see section "Pulling out the equipment carriage").
Grasping it on both sides, pull the front panel upwards to disengage the hooks (1).



Pull the front panel a little forward (2) and set it down carefully in a protective place to avoid scratches.

Installing the front panel

Hang the catches of the front panel (1) over the fastening bolts on the sides (2) and push the front panel down as far as possible.

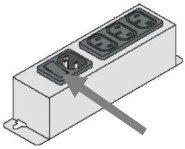


Push the equipment carriage in and lock it (see section "Pushing in the equipment carriage").

Switch-on via power distributor

Pull out the equipment carriage (see section "Pulling out the equipment carriage").
Switch the device on by using the ON/OFF switch on the power distributor (see arrow).

3 connectors

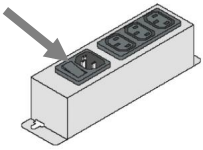


6 connectors

Switch-off via the power distributor

Complete all current transactions and power the device down.
Pull out the equipment carriage (see section "Pulling out the equipment carriage").
Switch off the device by using the ON/OFF switch at the power distributor (see arrow).

3 connectors



6 connectors

Measurements

Values in mm. Total height with baseplate 1552 mm.

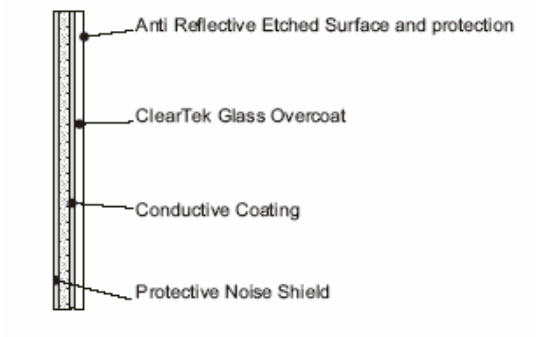
Touchscreen

General

The TFT LCD flat panel display is an XGA-compatible 15-inch flat panel display which is absolutely flicker free and low radiation. It is designed for a resolution of 1024 x 768 pixel. Application programs should be used with this resolution!
The screen module represents the main unit of the BA73A-2. It comprises of a TFT-LCD colour screen, the TFT-interface and an inverter that generates the voltage for backlighting the screen. As an option the screens are available with Touch Screen including a beeper.

Capacitive Touch Screen

The TFT Touch Screen works according to the principle of a change in analogue capacitance. It has a glass screen with a transparent, thin-film overlay on the surface. This is fully sealed and protected by a further layer of clear glass. Electrodes on the edges of the screen provide an uniform low-voltage field. As soon as you touch the screen with your finger the contact point is “recognized” by the change in capacitance.



Because this takes place very quickly, the Touch Screen is optimally equipped for a number of different requirements and applications.

The programming interface of the screen is identical to the mouse interface.

When you connect your new BA73A-2 to your BEETLE for the first time you have to calibrate the Touch Screen. Details depend on the operating system that you are using.

How to Operate

The Touch Screen responds to the slightest contact, therefore you do not have to apply much pressure when working with the screen. This does not only safe time, but is also kind to your joints!
Touching the touch glass has the same effect as clicking the left mouse button. You only need to apply a little pressure with the fingertip. In this capacitive process only fingertip contact is recognized. The screen does not react in any way if touched, for example, with a pencil or a glove.

Cleaning Instructions

Always **turn off the system** before cleaning.

The glass surface of your Touch Screen should be cleaned with a mild, abrasive free, commercially available glass cleaning product. All pH neutral materials (pH 6 to 8) are good for cleaning. Cleaners with pH values 9 to 10 are not recommended. Cleaning with water and isopropyl alcohol is possible as well. Do not use solvents containing acetic acid. Use a soft, fine-meshed cloth to clean the surface. Dampen the cloth slightly and then clean the screen.
A wrong maintenance may cause damages to the screen, which are not covered by guarantee or warranty.

Technical Data Touchscreen 15'' PanelLink

Frequencies	Horizontal (KHz) 48,3 Vertical (Hz) 60
Resolution	Horizontal 1024 pixel Vertical 768 pixel Colour depth: LCD adapter/ graphics PCI Controller: RGB 16, 256, 64k, LCD adapter: up to 16 mio.
Pixel format	approx. 0,30 mm x 0,30 mm
Brightness min.:	200cd/m^2 (center of LCD without glass)
Interface	LVDS
Power supply	3,3 V from Interface
Reading angle **right/left** **top/button**	 +/- 60° 45°/55°
Backlight	Twin lamps CCFL, Inverter, Lifetime: 50.000 h

Current Consumption of the Screen Module
Consisting of an LCD display, Touch Screen incl. controller, inverter, interface.

1 A + 12V (Normal Mode)
0 mA + 12V (Standby Mode)
1 A + 5V (Normal Mode)
400 mA + 5V (Standby Mode)

Technical Data Touchscreen 15'' RGB

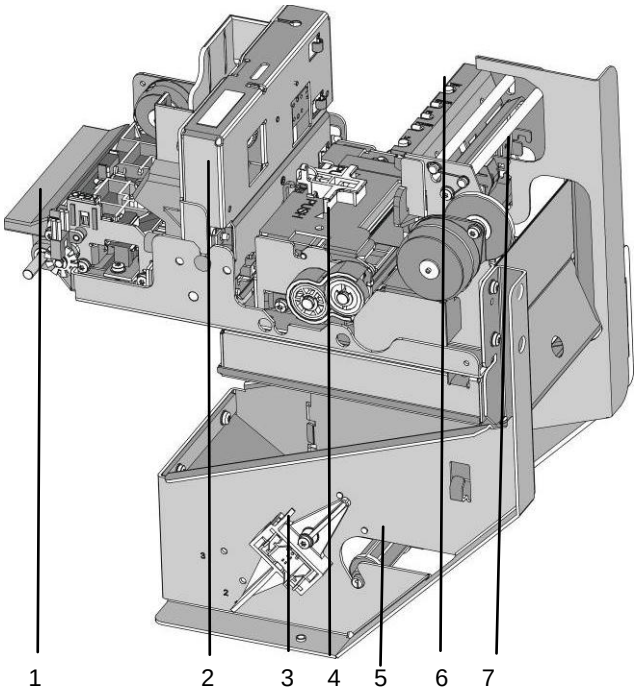
Frequencies	Horizontal (KHz) 30 ~ 55 Vertical (Hz) 56 ~ 70
Resolution	Horizontal 1024 pixel Vertical 768 pixel
Colour depth:	8-bit, 16 million
Pixel format	0.297 mm x 0.297 mm
Brightness	260cd/m^2
Interface	RGB analog
Power supply	12VDC, 3A (max)
Reading angle **right/left** **top/button**	 +/- 60° 45°/55°
Backlight	Twin lamps CCFL Lifetime: 50.000 h
Current Consumption	18 W + 12V (Normal Mode) 1.5W + 12V (Standby Mode)

Technical Data Touchscreen 17'' RGB

LCD Display	17" TFT Active Matrix Panel
Brightness	300 cd/m^2 (typ.)
Pixel Pitch (mm)	0.264(H) x 0.264(V)
Max. Resolution	1280x1024 (SXGA)
Contrast Ratio	500:1 (typ.)
Display Area	337.92 x 270.336mm
Response Time (Typ.)	8ms (typ.)
Support Color	16.2 M
Viewing Angle	+70°~-70° (H), +70°~-70° (V) (typ.)
Nominal Input Voltage VDD	+5.0V (typ.)
Power Comsumption	25.8W (typ.)
Electrical Interface	Dual Channel LVDS
Surface Treatment	Anti-glare, Hard Coating (3H)
Inverter	LI0419B
A/D Board	AD5621
Option	Touch Screen

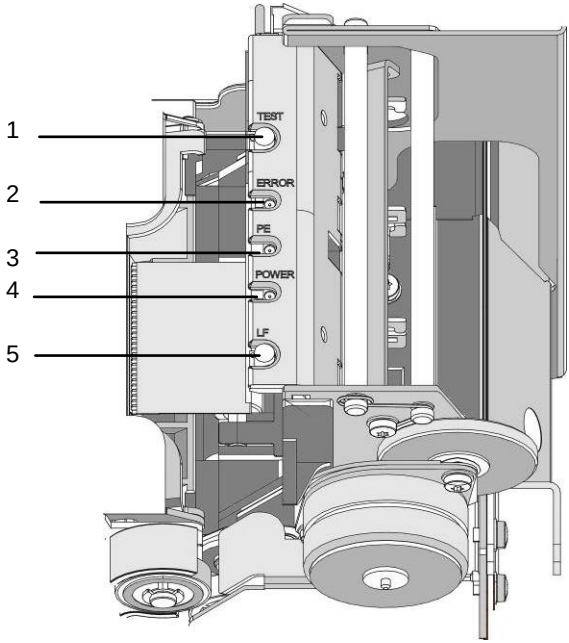
Printer TP07c

Functional components



1 Receipt output (presenter)
2 Cutter
3 Paper core adjustment
4 Thermal print module
5 Paper roll holder
6 Printer control panel
7 Paper guide

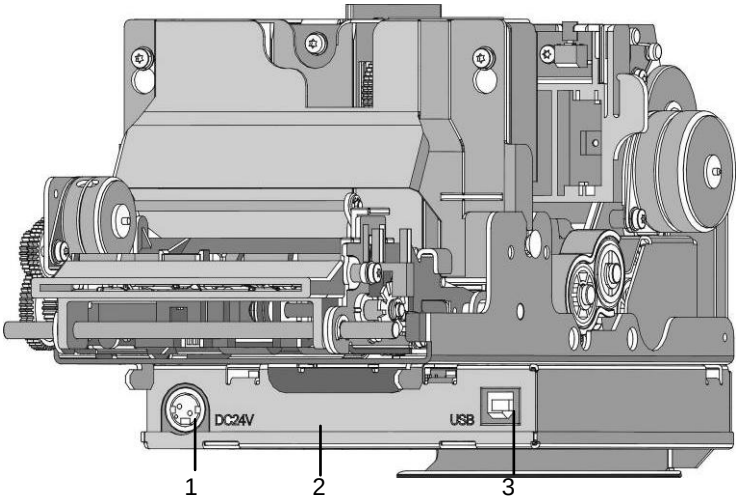
Printer control panel



1 TEST-button
2 LED ERROR
3 LED PE (paper end)
4 LED POWER
5 LINE FEED-button

1 TEST button	For test printout.
2 LED ERROR red	Off: normal condition On: offline Blinking: error (see section „ERROR LED Blink Pattern“)
3 LED PE (paper end) yellow	Off: paper is loaded On: paper roll near end is detected Blinking: paper roll end is detected
4 LED POWER green	Off: power is not stable On: power is stable
5 LINE FEED button	When the button is pressed once, the paper feeds 1/6". When the button is pressed longer than two seconds, the paper is fed constantly until the button is released.

Printer Connectors



1	Power supply connector	for power supply connection with 24V
2	Printer controller	
3	USB (Full Speed)	For system connection

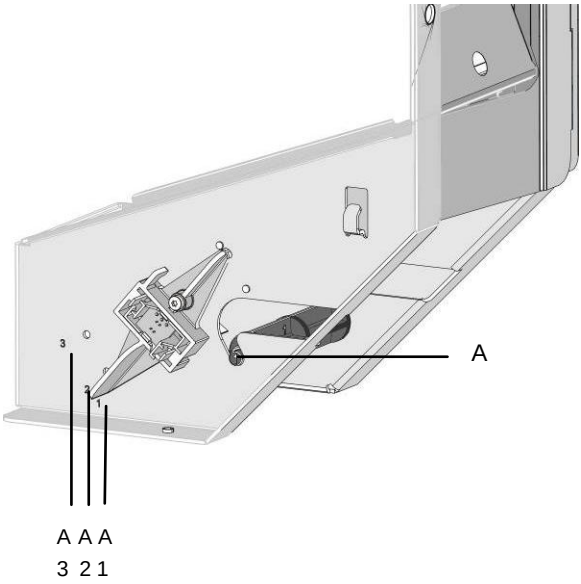
Changing the paper roll

Note the following when changing a paper roll.

Setting the paper roll core diameter

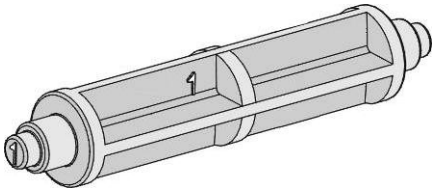
When starting the device or when changing the paper roll diameter check whether the selection switch for the paper near end adjustment is set to the correct position.

Core diameter	Paper roll diameter 180 mm
18 mm	Pos. A1
25 mm	Pos. A2
40 mm	Pos. A3

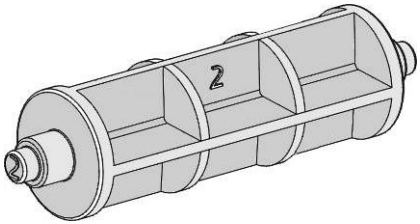


Choosing a paper roll holder

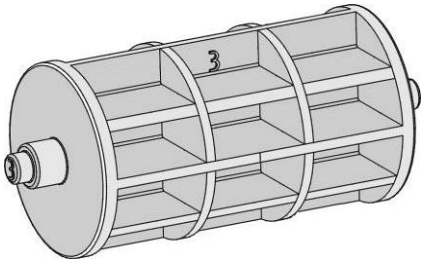
Choose the roll holder which fits to the paper roll core



Holder for 18 mm core diameter (identifier 1)



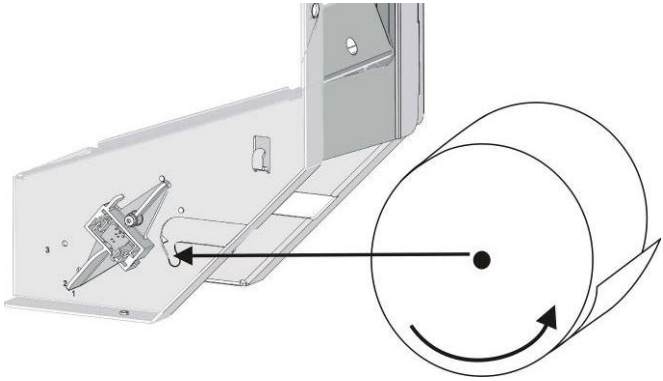
Holder for 25 mm core diameter (identifier 2)



Holder for 40 mm core diameter (identifier 3)

Inserting the paper roll

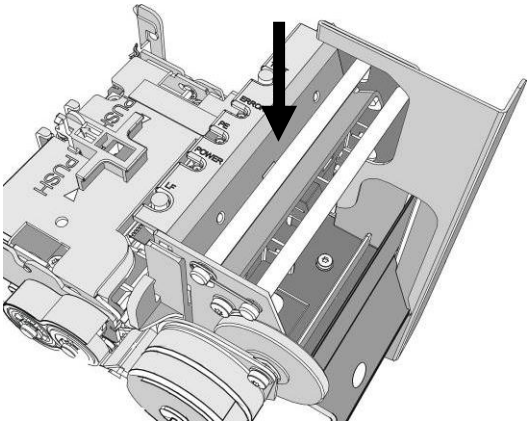
Push the paper roll holder into the paper roll core.
Insert the paper from behind into the printer as shown in the illustration.
Mind the unrolling direction of the paper.



Insert the black mark sensor (top left, top right, bottom left, bottom right) when using paper with black marks.

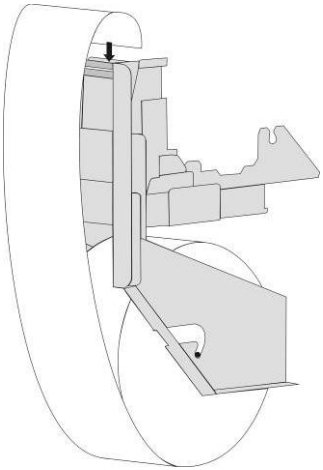
For correct paper feed or paper transport the front edge of the paper has to be straight and at right angles.

We, therefore, recommend to cut the paper with scissors.



Take the front edge of the paper over the upper axle and feed it into the paper support (see arrow).

Keep pushing the paper into the paper support until it is retracted automatically, the paper is cut off and the printed receipt is output via the presenter.



.

See also the sticker on the printer.

- Remove the receipt that was cut off before.

Removing the paper roll

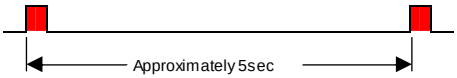
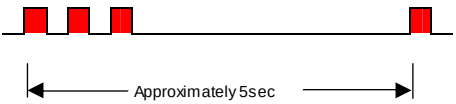
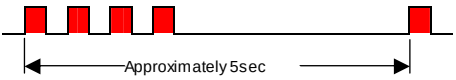
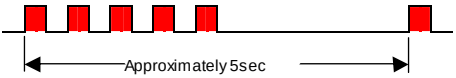
Cut off the paper at the paper support. Lift the paper roll out of the printer with the paper roll holder upwards. Use the LINE FEED button to remove the remaining paper.

ERROR LED Blink Pattern

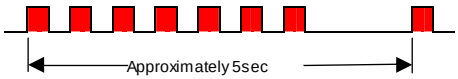
Recoverable Errors

The following table shows the blink pattern of all errors, that can be recovered by following the steps described in section “Paper feed error”.

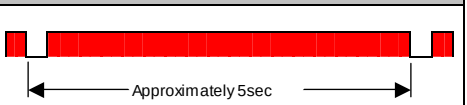
LED OFF LED ON

Error	Description		ERROR LED Blinking Pattern
Paper jam while cutting	The automatic cutter doesnot work because it does not leave or does not reach the home position.	1	
Paper jam before cutting	A paper jam is detected between print starting position and TOF sensor.	3	
Black Mark detecting error	The printer does not find the Black Mark.	4	
Paper jam after cutting – in presenter	A paper jam is detected after the printer cuts the paper. This occurs in the printers' presenter.	5	

The following errors can be recovered by removing and inserting the paper roll

Error	Description		ERROR LED Blinking Pattern
TOF position not found	After cutting the printer does not find the TOF position.	7	
Operation after power on error	Paper is after power on not at the print starting position. This error is enabled by memory switch 7-4.	8	
StartOfJob timeout	StartOfJob timeout occurred because no EndOfJob was received within the specified time.	∞	

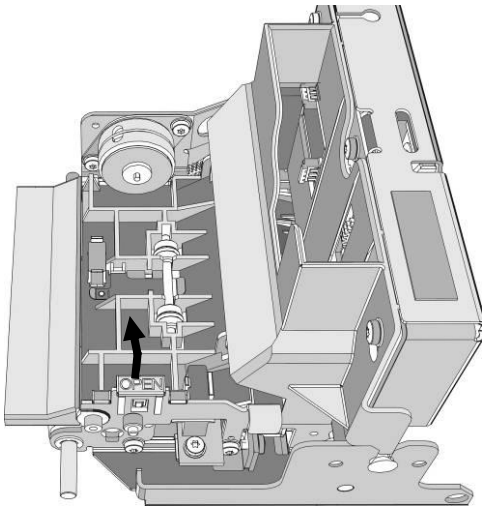
Unrecoverable Errors

Error	Description		ERROR LED Blinking Pattern
Temperature error thermal print head	There is an abnormality of the print line temperature	1	
High voltage error	The power supply voltage is extremely high.	3	
Low voltage error	The power supply voltage is extremely low.	4	

For recovery please contact the Technical Services.

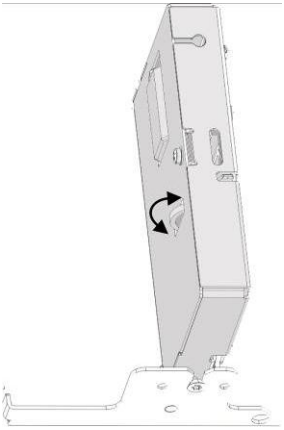
Paper transport error

In case of a paper jam open the presenter by releasing the stop lever (Take out the presenter, see illustration).

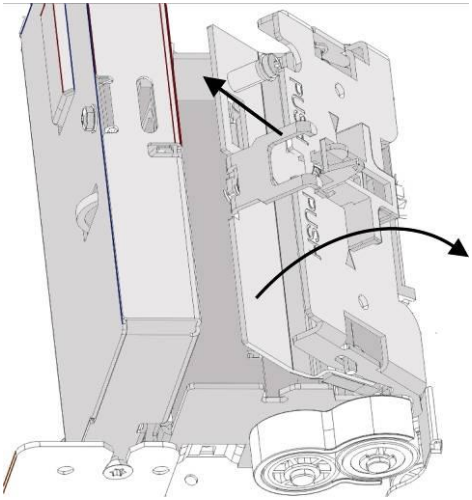


Check the paper transport path and remove the paper scraps, if necessary.

Check whether the cutter is in home position. If it is not, use the thumb wheel as long as you can see the auburn plastic part on top of the cutter.



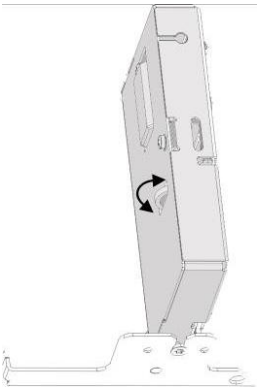
Check the print area of the thermal head for paper scraps. Use the green lever and flap the printing unit upwards.



Cut off the remaining paper at the paper support and pull it out.
Check if the paper roll is inserted correctly or a paper roll without black mark is inserted.
Reinsert the paper (see section "Inserting the paper roll").

Cutter error

Check whether the cutter is in home position. If it is not, use the thumb wheel as long as you can see the auburn plastic part on top of the cutter.



Unplug the power plug and plug it again. This should initialize the printer.
If this does not help, please contact the Technical Service.

Error thermal print temperature, high voltage/low voltage

- Please contact the Technical Services

Technical Data

Technology	Thermal receipt printer	
Graphic	203 x 203 dpi (8 dots/mm)	
Print speed	up to 150 mm/sec	
Character pitch	10.2 / 12.7 / 14.5 / 16.9 / 20.3 cpi	
Character per line	28 char/line	10.2 cpi
	36 char/line	12.7 cpi
	41 char/line	14.5 cpi
	48 char/line	16.9 cpi
	57 char/line	20.3 cpi
Line pitch	6 and 8 lines/inch additional micro steps n/203 inch	
Print attributes	- inverse	
	- underline	
	- bold	
	- upside down	
	- turn (90° steps)	
	- n-times heights (1-8)	
	- n-times width (1-8)	
Code pages	- 437 (IBM set II)	
	- 850 (Multilingual)	
	- 852 (Latin II9)	
	- 858 (Latin II, EURO Symbol)	
	- 860 (Portuguese)	
	- 863 (Canadian French)	
	- 865 (Nordic)	
	- 866 (Cyrillic)	
	- 1252 (Windows and loadable)	
Interface	USB (Full speed)	
Power supply	24V	
Sensors	- Paper near end	
	- Paper end	
	- Top of Form	
	- TOF mark	
	- Presenter out	
	- Cutter	

Consumables

Paper products

Please refer to the following paper specifications for details on the paper quality.

Paper specification

Paper quality	OJI KF50 – HDA or equivalent
Paper type	Thermal paper on rolls (thermal layer on the outside)
Paper color	white
Paper thickness	min 0.06 – max 0.1 mm
Paper smoothness (print side)	min. 300 Bekk Sec.

Receipt roll dimensions

Paper width	80 mm (- 1mm)
Paper weight	55g/m^2 – 80g/m^2
Outer receipts roll diameter max.	180mm
End of Paper	not glued to roll core
Inner diameter of roll sleeve	18 mm, 25 mm or 40 mm (+ 1 mm)
Paper core wall thickness	2mm (+ 1mm)
Paper core material	cardboard/ plastic

Black mark print

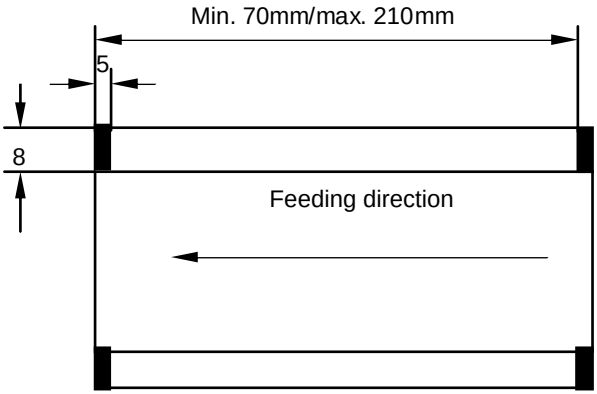
Printing properties

Opacity	≥85 % according to DIN 53 146
PCS value control mark	≥70 % according to DIN 66 223
Position	left or right or both on the same height
Reflection factor Ro	≥70 % according to DIN 53 145 part 1

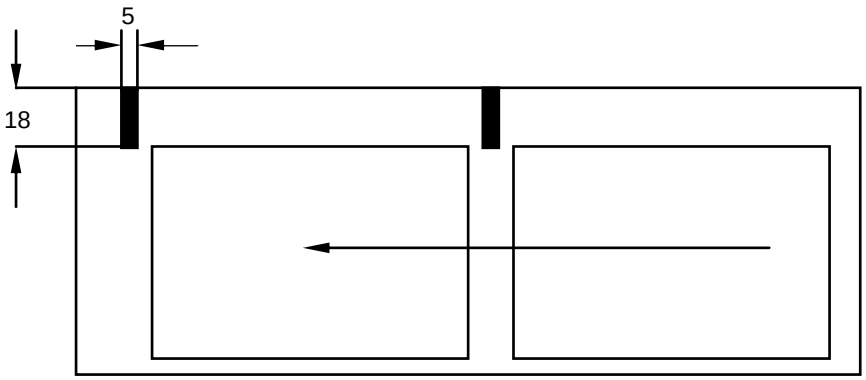
Dimensions

Mark height	5 mm ±0,1 mm
Mark width	8 mm ± 0,1 mm
Mark color	black, uncoloured black
Black mark distance	min. 70 mm, max. 210 mm

Front side
all dimensions in the drawings in mm



Rear side

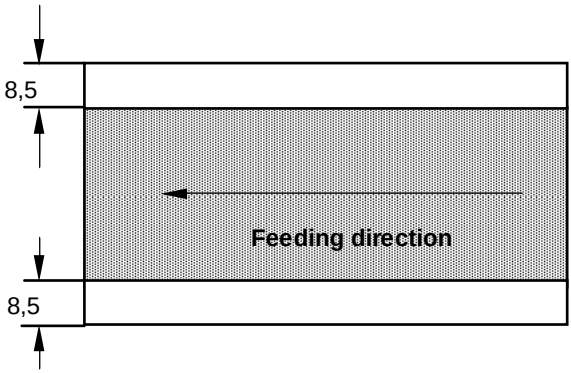


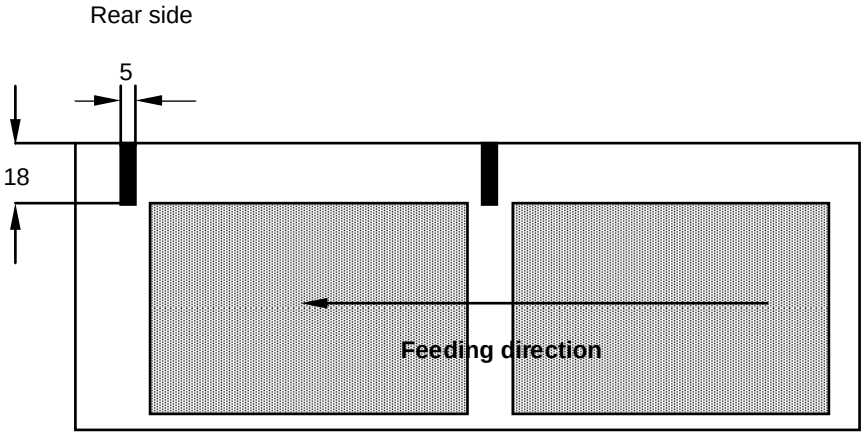
Feeding direction

Pre-printed receipts

The receipts can be pre-printed on the front and on the back side in the hatched area (see illustration).
In case of pre-printing outside the specified area the PCS value must be lower than 40%, and no sensor-sensitive colors should be used. The sensor light should be reflected completely by pre-printed colors.

Front side




Rear side
5
18
Feeding direction

Swipe Card Reader

The magnetic card reader can read three ISO tracks simultaneously per card swipe. The card tracks can only be evaluated if the card is swiped manually.
The card must be swiped through the slot from top to bottom at a swift, even pace. The swipe card reader is always connected via the BA72 MSR controller.

Technical data

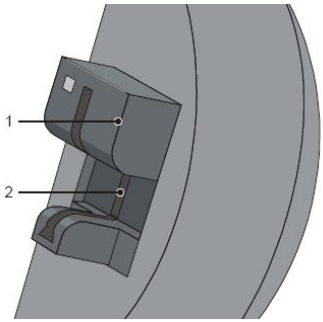
Card standards	ISO 7811, ANSI, AAMVA, CA DMV
Magnetic card coding	acc. to ISO 7811
Speed of card movement	10 cm/s to 140 cm/s
DC power supply	+ 5 V
Current consumption	1.0 / 1.25 mA
Weight approx.	60 g
Dimensions	100 x 25 x 25 mm

DIP Reader ID24

The DIP reader ID24 reads the data on an ID card's magnetic stripe when the card is inserted.

Function elements

The DIP reader ID24 can be installed in the device in such a way that the magnetic track of the ID card faces either up or down. The following picture shows the installation position 'track up'.



1 Read head (behind the panel)
2 Card insertion slot

Inserting an ID card

When you insert an ID card, you should make sure that the magnetic stripe is in the correct position.
The ID card unit cannot read the ID card information correctly, unless you insert the ID card into the ID card unit as described below.
The insertion of the ID card depends on the installation position of the card reader. The ID card can be inserted in the following ways:
Installation position: track facing up

Insert the ID card into the ID card unit as shown in the picture.

Installation position: track facing down

Insert the ID card into the ID card unit as shown in the picture.

Cleaning

The DIP reader ID24 is cleaned with a cleaning card.
Check that no dirt remains in the card insertion slot. (If necessary, clean the card insertion slot with a brush.)
You can clean the read head when the device is switched on or off.
Cleaning interval: every 20,000 transactions

Cleaning material: Wincor Nixdorf ELIX wet cleaning card
Order number:*01750016388*

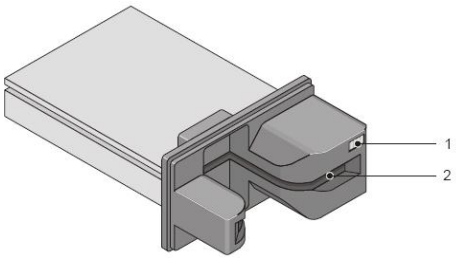
Cleaning process

- Remove the cleaning card from its packaging.
  The cleaning card can only be used for a brief period as it is a pre-saturated cleaning card which dries out after removal from its packaging.
- Insert the cleaning card into the card insertion slot like a regular ID card.
- Pull the cleaning card from the slot.
- Repeat this a few times.
- Dispose of the cleaning card.

Hybrid DIP Reader

The hybrid DIP reader reads the data on an ID card's magnetic stripe when the card is inserted.
When the card is inserted the chip data can be processed.

Functional elements



1 LED
2 Card insertion slot

Inserting an ID card

When you insert an ID card, you should make sure that the magnetic stripe is in the correct position.
The ID card unit cannot read the ID card information correctly, unless you insert the ID card into the ID card unit as described below.

Insert the ID card into the ID card unit as shown in the picture.

How the hybrid DIP reader works

Depending on the application software, the magnetic tracks are read either when the ID card is inserted or when it is pulled out (reading on insertion is the standard).
Therefore, it is important that the ID card is pushed in and pulled out in one smooth motion.

If the chip card function is used, the card is automatically locked in the insertion slot and released after processing is completed.
The meaning of the LED indicator above the card insertion slot is defined via the application software. Therefore it cannot be described in this manual.

The module is designed in such a way that inserted foreign bodies (coins, for example) can fall directly through the insertion slot to the bottom of the device.

Cleaning

The hybrid DIP reader is cleaned with a cleaning card.
Check that no dirt remains in the card insertion slot. (If necessary, clean the card insertion slot with a brush.)
You can clean the read head when the device is switched on or off.
Cleaning interval: every 20,000 transactions

Cleaning material: Wincor Nixdorf ELIX wet cleaning card

Cleaning process

- Remove the cleaning card from its packaging.
  The cleaning card can only be used for a brief period as it is a pre-saturated cleaning card which dries out after removal from its packaging.
- Insert the cleaning card into the card insertion slot like a regular ID card.
- Pull the cleaning card from the slot.
- Repeat this a few times.
- Dispose of the cleaning card.

Typical integrated EFT device

Features

- Multi application
- Open Java based architecture
- Leading edge security
- Customer and solution oriented
- EMV & Visa PED approved

Technical Data Hybrid Reader

Chip-card reader ID1	Integrated smart card reader ISO 7816 Parts 1,2,3 Tracks are read either when the ID card is inserted or when it is pulled
Magnetic stripe reader	ISO 7810, ISO 7811 1,2 ,3,4,5 Tracks are read either when the ID card is inserted or when it is pulled
Card reader lifetime	500 000 operations (clean indoor environment)
Interface	2x13pin parallel interface
Power supply	via power supply unit

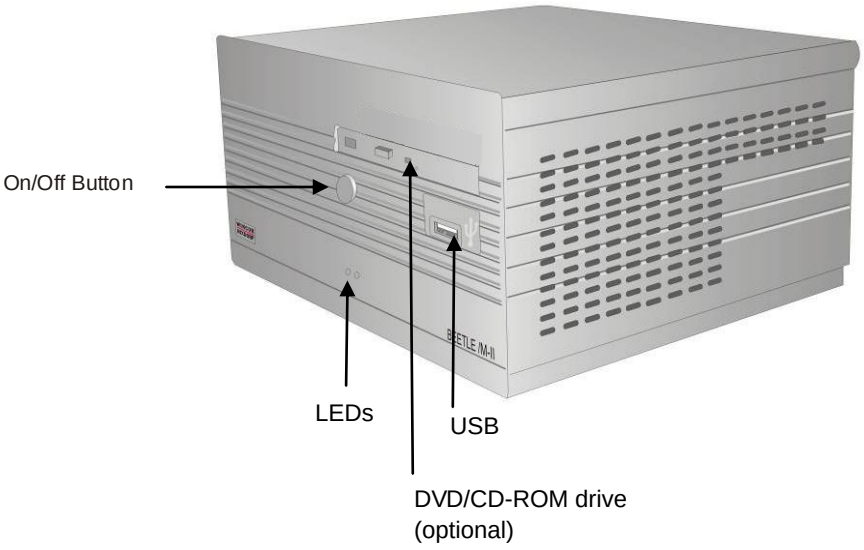
Technical Data PinPad

Approvals	ZKA, PCI–PED, CE
Interface	1 x Power 1 x Serial RS232 1 x Parallel to open frame Hybrid Card - Reader 1 slot for SAM (ID000 format)
Keyboard	16 – keys anti vandal stainless steel keyboard Keyboard lifetime: 2 million operations Numeric key size: 14 mm x 14 mm Command key size: 28 mm x 14 mm For the assistance of the visually impaired, the keyboard is marked with a tactile dot on the „5" key and tactile symbols on the cancel (X), clear (<) and enter (O) keys.
Display	132 x 40 dot backlit graphics display 7 x 5 dot character size, heights 3,8 mm Scratch-resistant glass face 4mm thickness Display lifetime: 70 000 hours
Electrical supply	Vin 10-24 V DC
Lithium backup battery	Typ CR1/2AA, Expected lifetime 7 years
Microcontroller und memory	32-Bit RISC Processor Memory: 2 MB Flash, 512KB SRAM

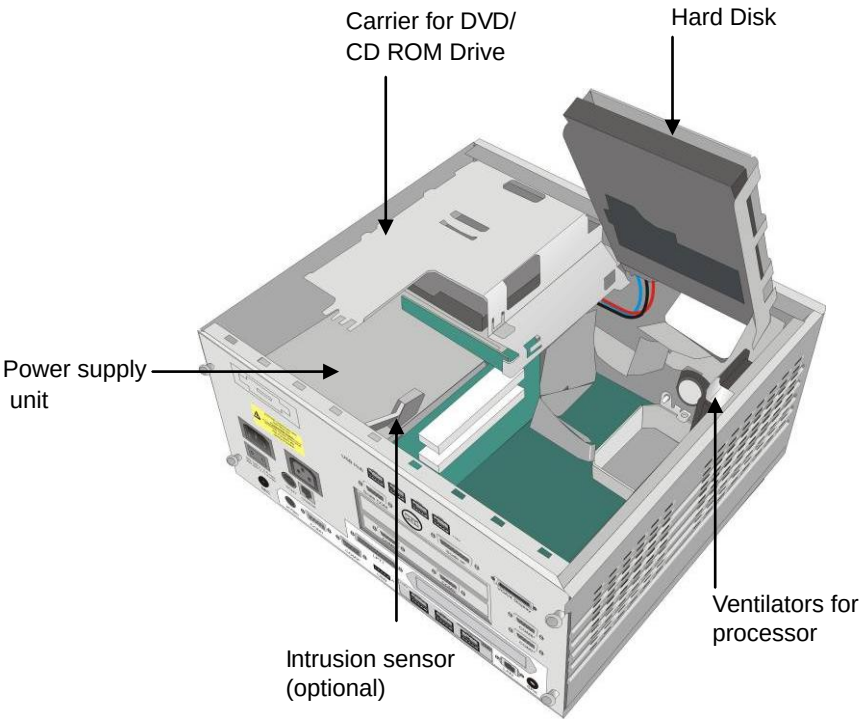
BEETLE /M-II

Overview

The following figure shows the outside of the BEETLE /M-II.



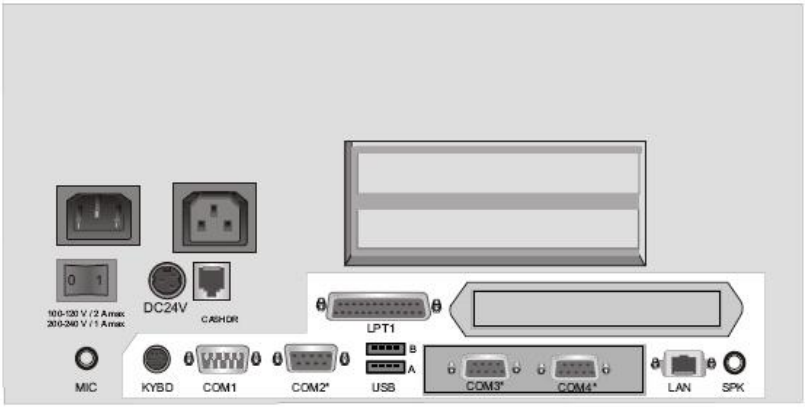
The figure below shows the interior of the BEETLE /M-II.



Back Panel of the BEETLE /M-II

The figure shows the back panel of the BEETLE /M-II (E1 CPU) with the locations of the connecting sockets and connecting plugs. If you wish to connect a monitor, however, you must also have a video board. You can connect the system to a network via an expansion board.

► Connecting peripherals with the system switched on is not allowed, except for USB.



Technical Data BEETLE /M-II

Motherboard	**E1 CPU**
Chip set	**Intel 845GV**
Microprocessor	**Intel P4, 2.2 GHz** **Celeron, 2.4 GHz**
HDD	**IDE HDD 40 GB/80 GB**
RAM	**256 MB – 2GB, 2 DIMM plug (184pin) 2.5V** **DDR SDRAM technology, unbuffered non EEC** **DDR266, standard DIMM, height up to 35mm**
LAN	**1x On-board Intel LAN module**
Interfaces	**1 x RS232 COM port**
	3 x Powered COM port
	3 x USB 2.0 port, 2USB rear- 1USB front- other interface options possible via adapter boards
	1 x DVI port, depending on configuration
	1 x VGA port, depending on configuration
	1 x keyboa rd, AT compatible
	1 x mouse, via Y cable together with keyboard optional internal connection
	1 x speaker port
	1 x LAN port
	1 x cash drawer
	1 x parallel interface IEEE 1284 compatible (ECP, EPP, PS/2 – compatible)
Output Power	**+12V DC**
	+5V DC
Sub Modules	**LAN controller or an ASYNC Connection (optional) ; CRT adapter or a CRT adapter**

Important notes

The modular POS system BEETLE /M-II conforms to the current safety standards for data processing equipment.

- If this device is taken from a cold environment into the operating room, moisture condensation may form. The device must be absolutely dry before being put into service; an acclimatization period of at least two hours must therefore be observed.

- This device is equipped with a safety-tested power cable and may be connected only to a prescribed grounded-contact power socket.

- When setting up the device, ensure that the power socket on the device and the grounded-contact power socket are easily accessible.

- To disconnect the device from the supply voltage completely, switch off the device und disconnect the power plug.

- Ensure that no foreign objects (e.g. office clips) find their way into the device, as this may lead to electric shocks or short-circuits.

- In order to ensure that the device is well ventilated and to prevent overheating, do not obstruct the ventilation slots on your device.

- Never plug in or unplug data communication lines during thunderstorms.

- Protect devices from vibrations, dust, moisture and heat.

- Always dispose of used parts in an environmentally safe manner.

- The lithium battery must be replaced by the end user only by identical batteries or types recommended by Wincor Nixdorf International GmbH. The lithium battery must be disposed of in accordance with local regulations for special waste.

- In emergencies (e.g. damaged housing or damaged power cable, penetration by liquids or foreign bodies), the device must be switched off immediately, the power plug disconnected and the Customer Service of Wincor Nixdorf International GmbH or your dealer must be notified.

- Your BEETLE system is the result of modern technical innovation. So please see for according structural and technical surroundings to guarantee a faultless and efficient work of your BEETLE.
Therefore, you should connect your BEETLE or other IT-devices only to power supply systems with separately guided protective earth conductor (PE). This kind of electricity system is known as TN-S network. Do not use electricity systems with PEN conductors!
Please also observe the recommendations of the norm DIN VDE 0100, Part 540, Appendix C2 as well as EN50174-2, §5.4.3. Thus you can help to avoid possible malfunctions.

The device may only be repaired by authorized qualified personnel. Unauthorized opening of the device and inexpertly carried-out repairs may not only seriously jeopardize the safety of the user, but also cancel all warranty and liability agreements.

Embedded Compact PC

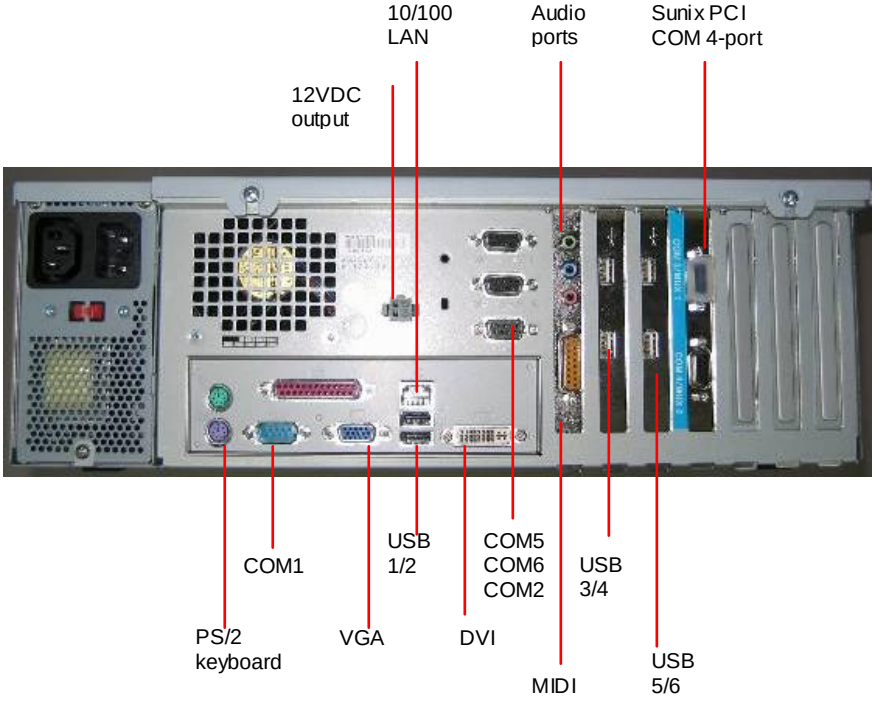
Overview of Compact PC

The device is equipped with a Celeron 4 Embedded Compact PC.

Technical Data

Motherboard	**P195-Plus Motherboard**
Chip set	**Intel 845GV**
Microprocessor	**Intel Pentium 2.0 GHz (PGA478)**
HDD	**IDE HDD 40 GB**
RAM	**DDR 512 MB**
LAN	**1x On-board Intel LAN module**
Interfaces	**2 x RS232 COM port**
	4 x Powered COM port
	6 x USB 2.0 port
	1 x DVI port
	1 x VGA port
	1 x keyboard
	1 x mouse
	1 x speaker port
	1 x LAN port
Output Power	**+12V DC**
	+5V DC
Add On Cards	**SUNIX PCI Multi I/O Card**

Rear side


10/100
LAN
Audio
ports
Sunix PCI
COM 4-port
12VDC
output
COM1
USB
1/2
COM5
COM6
COM2
USB
3/4
PS/2
keyboard
VGA
DVI
MIDI
USB
5/6

Barcode Reader

The omnidirectional scan pattern offers outstanding scan performance on all standard 1D bar code symbologies, including RSS.

The scanner's main cable connector is located at the top of the unit to facilitate mounting and the auxiliary connector gives users access to several of the I/O signals, providing the flexibility for external hookup of beepers, buttons, and LED's.

The barcode reader is equipped with powerful features such as easy programming, user replaceable cables and upgradeable software.

Technical Data

Light Source	Visible Laser Diode 650 nm
Laser Power	1.1 mW (peak)
Decode Capability	Autodiscriminates all standard 1D bar codes, including RSS-Expanded,RSS-14 and RSS-14 Limited;
System Interfaces	RS232, Light Pen Emulation, Keyboard Wedge, Stand Alone Keyboard, IBM 468x/469x, USB, Laser Emulation, OCIA
Number Characters	Read Up to 80 data characters
Beeper Operation	7 tones or no beep
Indicators	Blue = laser on, ready to scan White = good read
Input Voltage	5 VDC + 0.25 V
Power	1.375 W
Operating Current	275 mA typical @ 5 VDC
DC Transformers	Class 2; 5.2 VDC @ 650 mA
Laser Class	Class 1; IEC60825-1:1993/A1:1997+A2:2001 Class 1; EN60825-1:1994/A11:1996+A2:2001
EMC	FCC, ICES-003 & EN55022 Class B
Depth of Scan Field	25 mm - 279 mm (1” - 11”) for 0.33 mm (13 mil) bar code(programmable) at default setting
Width of Scan Field	30 mm (1.2”) @ 25 mm (1.0”); 150 mm (5.9”) @ 280 mm (11.0”)
Scan Speed	1650 scan lines /sec, omnidirectional; 80 scan lines /sec,single line
Scan Pattern	5 fields of 4 parallel lines omnidirectional; or button activated single line
Number of Scan Lines	20 (omnidirectional); or 1 (single-line)
Minimum Bar Width	0.127 mm (5.0 mil)
Print Contrast	35% minimum reflectance difference
Roll, Pitch, Yaw	360°, 60°, 60°

Keyboard

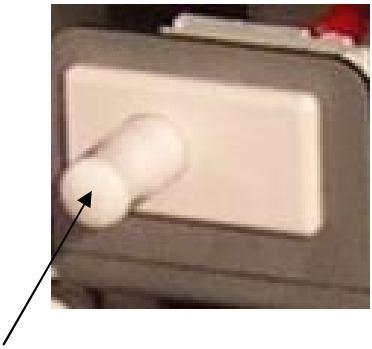
Advantages / Highlights:

– Prestigious design
– Especially designed for kiosk and public environment
– Vandal resistant – sealed to IP65 / NEMA4
– Fireproofed ABS Layer for best tactile keystrokes
– Keycaps with trough for better typing comfort
– Keycaps made of stainless steel, non removable, fireproof
– Full travel keys with 2.2 mm stroke
– Best tactile feel via silicone mat
– Laser engraved legends (customized optional)
– Any language via programmable controller
– Connectivity via USB
– Keyboard front panel made of 4 mm stainless steel
– Standard or custom front plate design (optional)
– Back panel version
– Robustly & longevity 38 mm plastic trackball
– Stainless-Steel-Trackball (optional)
– Integrated USB-HUB (2port) to connect keyboard & trackball

Technical Data

Dimension:	403.5 x 137.9 x 32 mm
Number of Keys:	70
Key Technology:	Membrane switch
Key Strokes:	0.7N / 2.2mm / Tactile feel
Durability:	10 million Operations
Sealing:	P65
Connectivity:	USB
Connector:	USB A - A
Material Front panel:	Stainless Steel 4mm
Trackball Diameter:	38 mm
Ball Material:	Plastic / Stainless-Steel optional
Transducers:	Photo-optical encoders
Number of Keys:	2
Key Strokes:	3N / 0.4mm / Tactile feel
Sealing:	IP65 (static) / shock proofed
Connectivity:	USB
Connector:	Mini USB – USB A

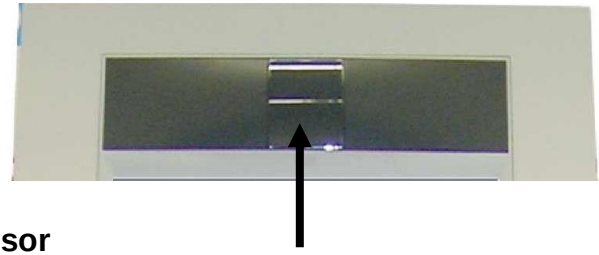
Door open sensor



The sensor is located behind the equipment carriage.

If the carriage is pulled out of the device a signal is send to the application software for further reactions.

Proximity Sensor/Camera



Proximity Sensor

Introduction

The proximity sensor is predominantly applied in self-service terminals such as e. g. kiosk terminals or ticket automats. Persons and objects of comparable size who approach the kiosk terminal are detected by the sensor and are signalled to the application program via evaluation electronics.
The application can react to this message e. g. by sending out acoustic signals or by changing the content on the monitor, as soon as a customer approaches the automat.

Function

On radar sensor basis persons as well as objects of comparable size, who move within the detection area of the sensor, are detected. The signal of the sensor is extended by means of auxiliary electronics; i. e. the signal backspaces 15 seconds after the last detected movement.

In case of detection of a further movement within this time frame the delay time will be restarted.

Important: The sensor does only react on movement. A person standing in front of the terminal without moving will not be detected. It is thus not possible to tell by means of the output signal of the sensor, if a person is present in front of the terminal or not.
The sensor can be protected from vandalism by being implemented directly behind plastic covers. It can either be implemented behind an opening of at least 35 x 45 mm in metallic cabinet, whereas the opening in turn can be covered by a plastic element.
Starting from the sensor surface the sensitivity area is ball-shaped.

Technical Data:

Supply voltage:	24V DC +- 10%
Current consumption:	ca. 50mA
Sensitivity distance:	pre-adjusted to ca. 1m

Camera

Features:

Low cost and high quality
VGA 640x480 @ 30 frame rate per second
USB Interface with Plug and Play
Lens focus from 3 cm to infinity
Full screen 640 x 480 display
High quality lens for sharp pictures
High-quality still pictures and motion video capturing

Specification:

Sensor:	CMOS 120K pixels (image up to 640x480)
Video format:	24-Bit True Color
USB interface:	compliant to USB 2.0 and 1.1
Image res:	640x480, 352x288, 320x240, 176x144, 160x120
Video resolutions:	640x480, 352x288, 320x240, 176x144, 160x120
VGA	640x480 @ 30 frame rate per second
Adjustable focus:	3 CM to infinity

Automatic white balance

Automatic exposure
Automatic compensation
Store digital videos in AVI and WMV file formats
Store digital photos in JPEG and BMP file formats

Approvals

CE, FCC

Appendix

Technical Data Certo 415/417

Installation specifications

CERTO 415/417 Kiosk System	With base plate	Without base plate
Dimensions:		
Height:	1552 mm	1542 mm
Depth:	268 mm	268 mm
Width:	472 mm	472 mm
Weight of device:	Approx. 96 kg	Approx. 81 kg

Environmental Conditions

Operating	Indoor air conditioned environment +10°C to +30°C, Optimum operating range (+5°C to +32°C: In this temperature range the system must only be operated for a short period of time) Relative Humidity: +10% to 75% RH, non-condensing	
Storage	Temperature: +10°C to +85°C Relative Humidity: 5% to 85% RH, non-condensing	
Power supply	100-120V AC @ 50/60Hz	200–240V AC @ 50/60Hz
Power consumption	4 A	2 A

Power Cord Selection

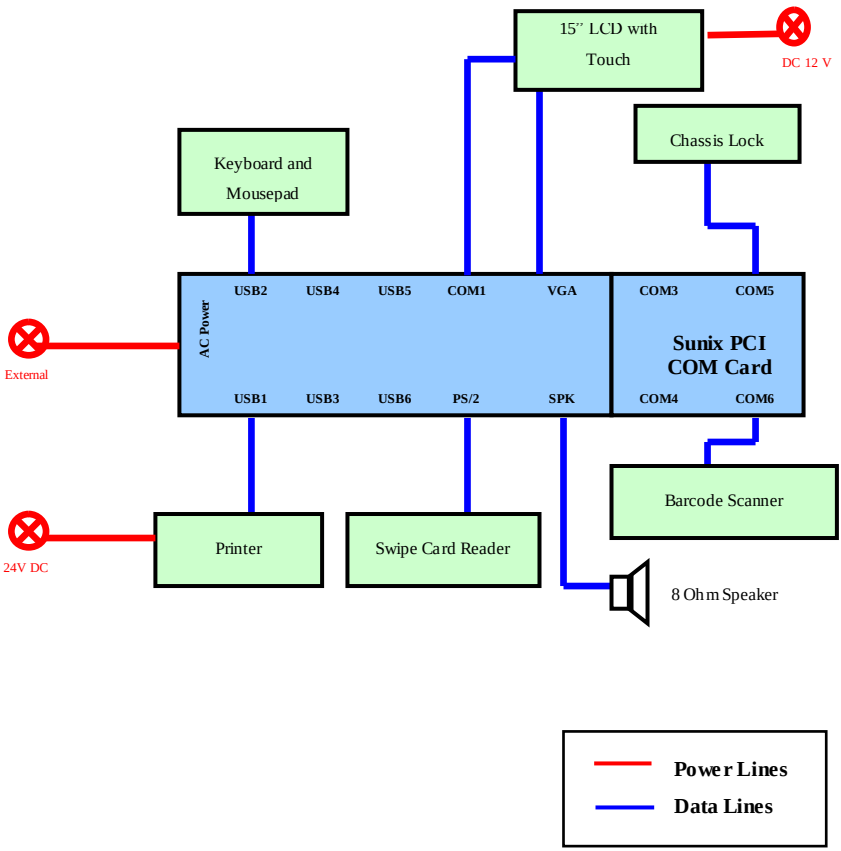
If the power cord is not provided with the system, the user has to ensure that a certified power cord is used as required by the Safety Regulation of the country.

Countries	Safety Approvals
USA	UL
Canada	CSA
Germany	GS
Japan	PSE
Taiwan	BSMI
China	CCC

For other countries not mentioned in the above list, please check with the local authority.

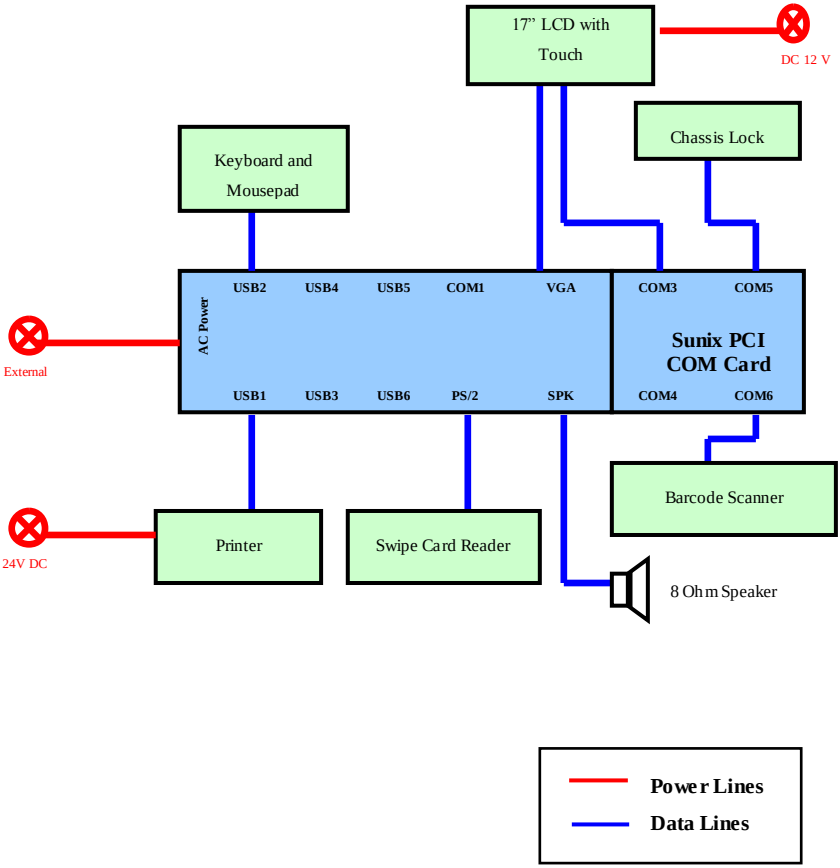
Block Diagram for CERTO 415 Kiosk System with P4 EPC

(Sample)

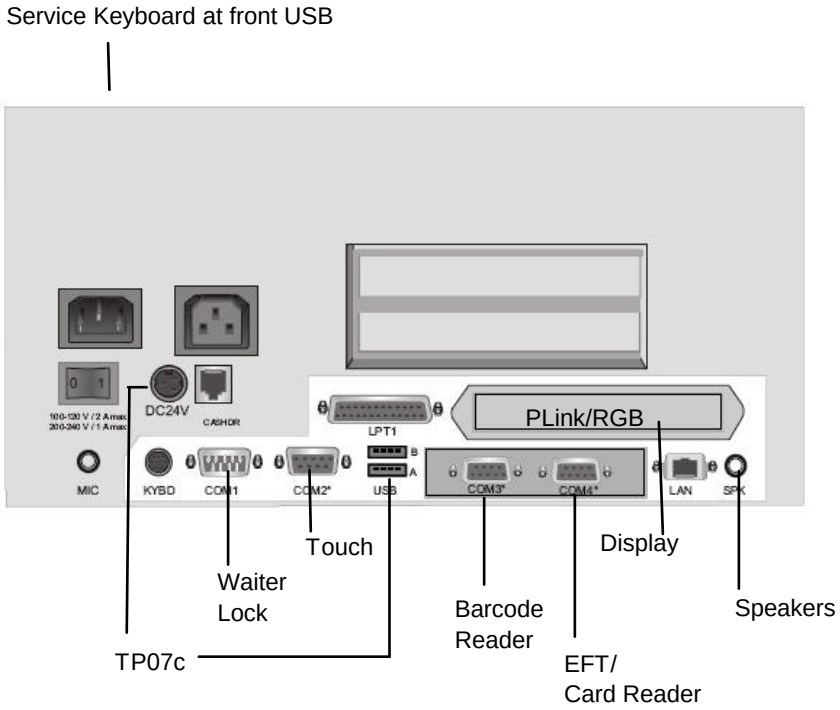


Block Diagram for CERTO 417 Kiosk System with P4 EPC

(Sample)



Typical Connector Assignment BEETLE/ M-II



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